

9. Install the reduction gears by reversing the preceding steps while noting the following:

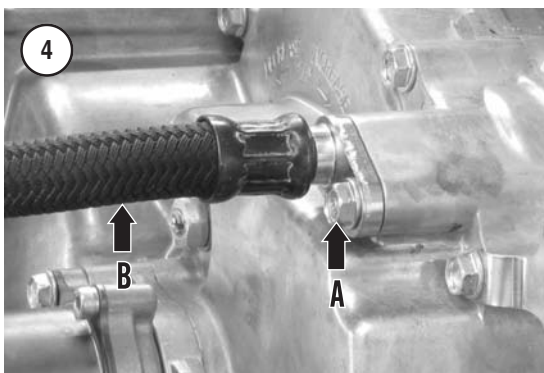
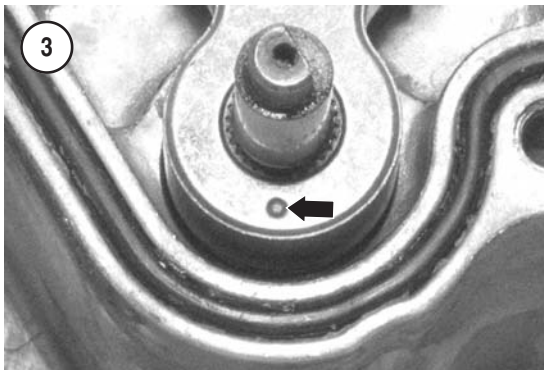
- a. Install the sector gear so the punch mark is out (**Figure 3**).
- b. Align the master splines on the sector gear and sub-gearshift spindle.
- c. Apply 3-5 grams of N2 or N3 rated grease to the gear teeth and journals of all gears.
- d. Install a new O-ring seal.

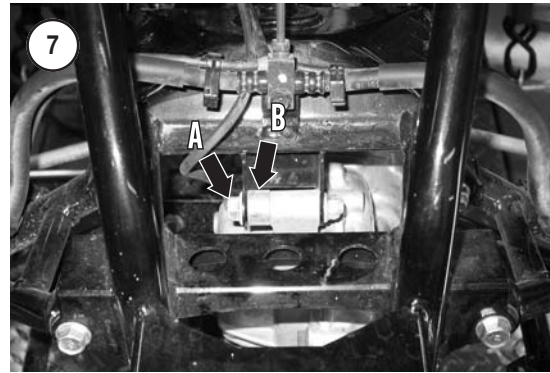
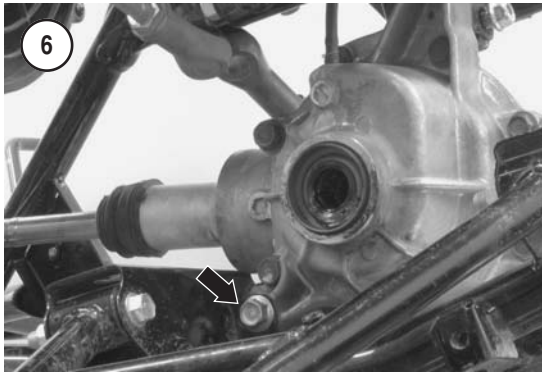
6

CLUTCH COVER

Removal/Installation

1. If the engine is mounted in the frame, perform the following steps:
 - a. Park the vehicle on level ground and set the parking brake.
 - b. Drain the engine oil as described in Chapter Three.
 - c. Remove the retaining bolt (A, **Figure 4**), then detach the oil hose (B) from each side of the engine. Cover the hose ends to prevent oil leakage and contamination.
 - d. Remove the oil hose O-ring (**Figure 5**).
 - e. On FE and TE models, remove the ESP reduction gears as described in this chapter.
2. On FE and FM models, proceed as follows:
 - a. Remove the lower front differential mounting bolt (**Figure 6**).
 - b. Remove the upper front differential mounting bolt (A, **Figure 7**) and spacer (B).
 - c. Remove the front differential front mounting bracket bolts (**Figure 8**).
 - d. Push the front differential forward, then push the front driveshaft forward so it disconnects from the engine output shaft (**Figure 9**).





3. Remove the oil dipstick (**Figure 10**).

4. Before removing the clutch cover mounting screws, draw an outline of the cover on a piece of cardboard. Punch holes along the outline for the placement of each mounting screw.

5. Remove the clutch cover mounting screws and remove the clutch cover (**A**, **Figure 11**).

6. If necessary, remove the dowel pins (**A**, **Figure 12** and **A**, **Figure 13**).

7. Remove the rubber seals (**B**, **Figure 13**) from the oil pump dowel pins.

8. If necessary, remove the clutch lever assembly (**B**, **Figure 12**) as described in this chapter.

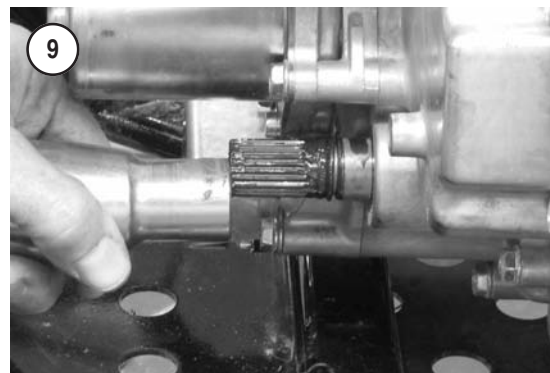
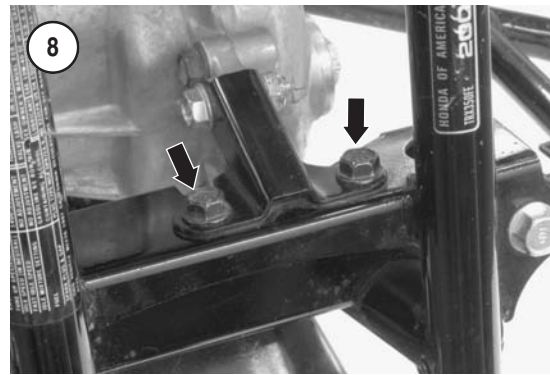
9. Remove all gasket residue from the clutch cover and crankcase mating surfaces.

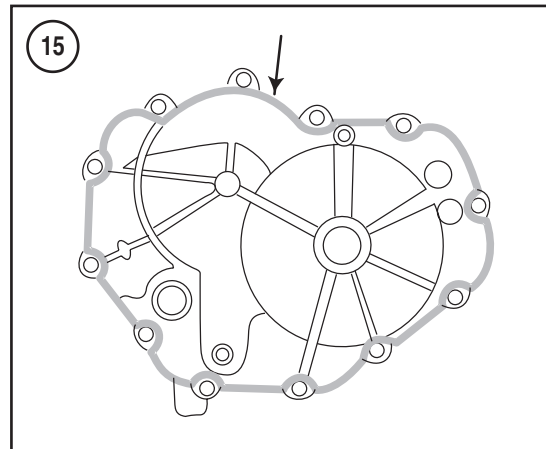
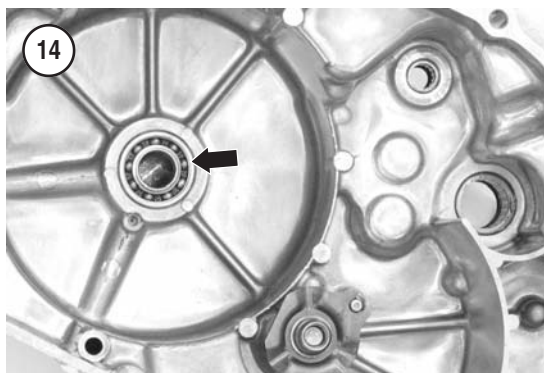
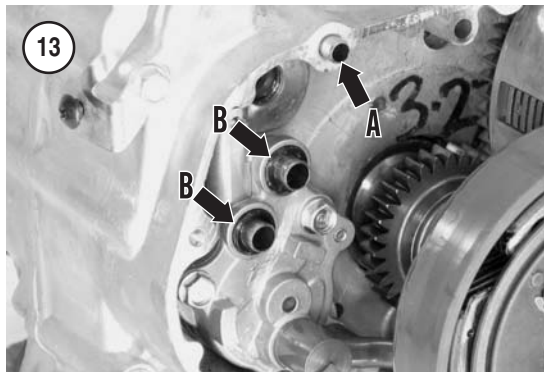
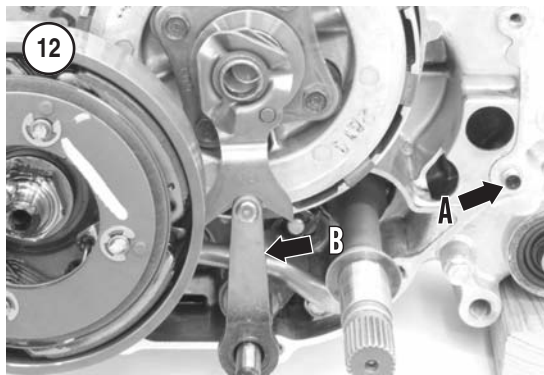
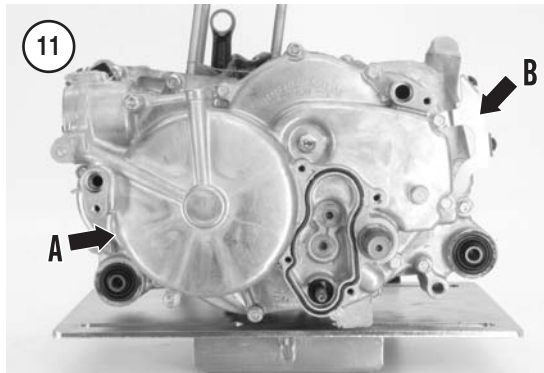
10. If the clutch cover is going to be serviced and/or cleaned in solvent, perform *Clutch Cover Cleaning* in this section. Otherwise, store the clutch cover in a plastic bag until reassembly.

11. Inspect the crankshaft end bearing (**Figure 14**) as described in this section.

12. Install the clutch cover by reversing the preceding steps, while noting the following:

- a. Lubricate the crankshaft end bearing (**Figure 14**) with engine oil.
- b. Replace the oil pump rubber seals (**B**, **Figure 13**) if they are worn or damaged. Lubricate the rubber seals with engine oil before installing them onto the dowel pin.
- c. Install the clutch lever assembly if it was removed (**B**, **Figure 12**) as described in this chapter.
- d. Install the dowel pins if they were removed.
- e. Thoroughly clean the mating surfaces of the crankcase and clutch cover. Apply a bead of Yamabond No. 4 or equivalent to the clutch cover mating surface as shown in **Figure 15**.





6

- f. Lubricate any oil seals in the cover with engine oil.
- g. Install the engine side cover bracket (B, **Figure 11**). Tighten all of the clutch cover mounting bolts to 12 N•m (106 in.-lb.).
- h. Replace the oil hose O-rings if they are leaking, worn or damaged. Tighten the oil hose bracket bolts (A, **Figure 4**) to 12 N•m (106 in.-lb.).

Clutch Cover Cleaning

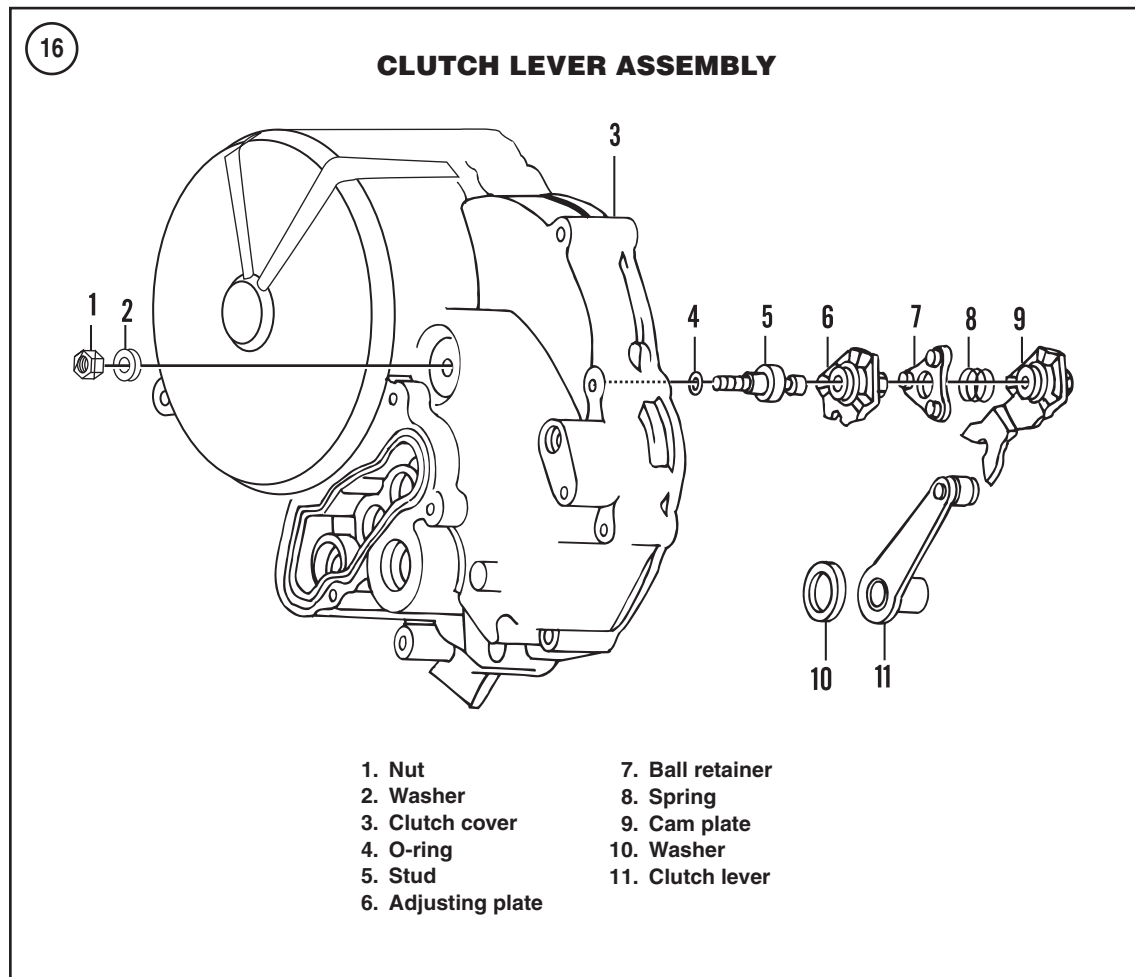
The clutch cover houses the crankshaft end bearing, oil filter, oil relief valve and a number of oil passages. Before cleaning or servicing the clutch cover, remove the oil filter and oil relief valve assemblies as follows:

1. Remove the oil filter as described in Chapter Three.
2. Clean the clutch cover and its oil passages with solvent.
3. Clean any bearings in solvent, except the sealed ESP reduction gear bearings, if so equipped. Dry the clutch cover, oil passages and bearings with compressed air.

WARNING

Do not spin bearings with compressed air. Doing so may cause the bearing to fly apart.

4. Lubricate all bearings with engine oil.
5. Install the oil filter after reinstalling the clutch cover onto the engine.



Crankshaft End Bearing Inspection and Replacement

The bearing installed in the clutch cover supports the front crankshaft end. This bearing must be in good condition and fit tightly in its mounting bore.

1. Hold the clutch cover and slowly turn the crankshaft end bearing (**Figure 14**) inner race. Check for roughness, excessive play or noise. If the bearing feels gritty, clean the bearing as described in *Clutch Cover Cleaning* and then recheck it for wear and damage. If any of these conditions are present, the bearing is probably damaged. Replace the bearing as described in Step 3. If the bearing is good, lubricate it with engine oil.

2. Make sure the bearing outer race is a tight fit in its mounting bore. If the bearing is a loose fit, the mounting bore is probably cracked or excessively

worn. If the mounting bore is damaged, replace the clutch cover.

3. Replace the bearing as follows:

- Remove the oil filter (Chapter Three) from the clutch cover. Clean the clutch cover in solvent and dry it with compressed air.
- Support the clutch cover with the bearing facing up.
- Heat the area around the bearing with a propane torch, then remove the bearing with a blind bearing remover as shown in Chapter One.
- Heat the clutch cover again, then press the new bearing into its mounting bore until it bottoms. Install the bearing with the manufacturer's numbers facing out.
- Install the oil filter after installing the clutch cover onto the engine.

Copyright of Honda TRX350 RANCHER, 2000-2006 is the property of Penton Media, Inc. ("Clymer") and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.